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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/429, 939 10/29/99 AUTHIER

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QMO2/0928

EXAMINER

PRUNNER, K

ART UNIT	PAPER NUMBER
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3751

DATE MAILED: 09/28/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/429,939	Applicant(s)	Authier et al.
	Examiner Kathleen J. Prunner	Group Art Unit 3751	



Responsive to communication(s) filed on Feb 9, 2000

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire THREE month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 1-12 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 1-12 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on Oct 29, 1999 is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Drawings

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1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign **not mentioned** in the description: **4** (note Figs. 1-3). Correction is required.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference signs **mentioned** in the description: **14** and **16** (note pages 5 and 6). Correction is required.
3. Applicant is required to submit a proposed drawing correction **in reply to this Office action**. Any proposal by the applicant for amendment of the drawing to cure defects **MUST** be embodied in a **separate letter to the Draftsman**. See MPEP §608.02(r).

Specification

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4. The following informalities in the specification are noted: (A) on page 4, lines 13, 16 and 17, “11” should read --12--; (B) on line 16 of page 4 and line 28 of page 5, “Spa” should read --spa--; (C) on page 6, line 7, --to-- should be inserted before “account”; and (D) on page 11, line 2, “for maintaining” should read --maintains--. Appropriate correction is required.

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Claim Objections

5. Claims 6 and 12 are objected to because of the following informalities: these claims are redundant since they both depend from claim 1. Appropriate correction is required.

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Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 6, 11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claims 6 and 12 contain a term lacking proper antecedent basis. The claims recite the limitation "said predetermined period of time" in line 1. There is insufficient antecedent basis for this limitation in the claim. Apparently claims 6 and 12 should depend from claim 5.

9. Claim 11 contains a term lacking proper antecedent basis. The claim recites the limitation "said at least one blower" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tompkins et al. ('720) in view of Dundas. Tompkins et al. disclose a freeze control system for a spa having a heating element 26, a pump 24 for pumping water, a sensor 21 for detecting the temperature of the water in the spa, and a computer 10 programmed to process signals and selectively activate and deactivate the heating element 26 and the pump 24 (note from line 66 in col. 18 to line 36 in col. 19). Although Tompkins et al. use water temperature sensor 21 as well as other water sensors to operate the freeze control system, attention is directed to Dundas who discloses another freeze control system for a spa or pool that uses both a water temperature sensor and an ambient air temperature sensor to activate the control system (note lines 54-57 in col. 1 and lines 16-33 in col. 2) in order to heat the pool using minimal energy with less waste and expense (note lines 15-19 and 35-37 in col. 1). It would have been obvious to one of ordinary skill in the spa/pool art, at the time the invention was made, to use an ambient air temperature sensor in conjunction with the water temperature sensor in the control system of Tompkins et al. in view of the teachings of Dundas in order to more effectively operate the control system using minimal energy and less waste and expense. With respect to claims 2 and 8, the positioning of the ambient air temperature sensor is considered to be an obvious expedient to the skilled artisan since to obtain an accurate ambient air temperature reading, the ambient air temperature sensor should necessarily be mounted so as to be unaffected by any apparatus that emits heat including that of the components of the control system. With regard to claims 3, 4, 9 and 10,

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it is considered that to position the ambient air temperature sensor closer to the spa equipment where it can be affected by the heat generated by the operating and control systems of the spa/pool and to have the computer make the required correction factors to account for this heat would be an obvious expedient to the skilled artisan especially when available space is limited and accurate readings are key to the efficient operation of the spa. With regard to claims 6 and 12, although it is considered that the predetermined time period necessary to effect operation of the pump is an obvious expedient to the skilled artisan, to use a predetermined time period of one minute to effect operation of the pump is simply the result of optimization of the prior art teachings through routine experimentation, which is not a matter of invention, absent a showing to the contrary (see *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA) 1955), and *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969). With respect to claim 7, Tompkins et al. further disclose an air blower 28.

Conclusion

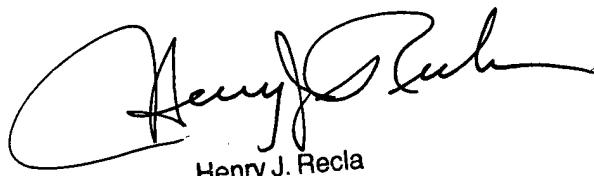
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Strange, Jr., is cited to show a freeze control system for a pool that utilizes an ambient temperature sensor (note lines 47-50 in col. 2) to effect its operation.
13. Any inquiry concerning this communication from the examiner should be directed to Examiner Kathleen J. Prunner whose telephone number is 703-306-9044. The examiner can normally be reached Monday through Friday from 5:30 AM to 2:00 PM. However, a request for an interview should be directed to the examiner's supervisor noted below.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Recla, can be reached on 703-308-1382. The fax phone number for the organization where this application is assigned is 703-308-7766.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-308-0861.


Kathleen J. Prunner
Kathleen J. Prunner:kjp



Henry J. Recla
Supervisory Patent Examiner
Group 3700

September 26, 2000